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ORGANISATIONAL MORPHOLOGY OF RURAL INDUSTRIES IN LIBERALISED INDIA: A STUDY OF WEST BENGAL

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ABSTRACT

Recent interest on rural industries derives from recognition of the limits of agriculture and organised manufacturing sector in employment generation especially during the post-liberalisation period in India. Historically, industrial development of the West and the East present contrasting pictures of rural industries. One, the linearity model founded on the historical experience of the West, holds that development implies a movement away from traditional subsistence production in rural areas to modern industrial production in urban centres. The other, the East Asian Experience has shown that the growth potential of rural industries is considerable given the under-utilisation of the physical labour and the entrepreneurial ability of rural people. A combination of putting out system and subcontracting system - along with modern factory and industrial cooperatives - has persisted in the rural manufacturing sector even in the era of economic liberalisation. We find differential capital endowments and socio-economic constraints of rural artisans reflecting extensive division of labour, specialisation and fragmentation of the labour process. These do not satisfy the requirements of the linearity model founded in advanced capitalist countries.

Key words: Rural industry, production organisation, linearity model, transaction cost

JEL Classification : O18, R12

1. Introduction: Context and Problem

Recently, there has been a surge of interest in rural industries in general, and non-farm activities in particular of developing countries such as India (Mukhopadyay and Lim, 1985; Mishra, 1985; Papola, 1987; Islam, 1987; Eapen, 2001; Soundarapandian, 2000; Liebl and Roy, 2003). This derives from a recognition of the limitation of the agricultural sector (specifically crop production) in productively employing the rural labour force, the stagnation of the organised manufacturing sector and the various industrialisation strategies pursued (Bremen, 2001). To highlight the potential of the rural industrial sector, scholars have illustrated the agriculture-induced linkages[1] on it (Mellor, 1976). The extent to which the linkage effect would favour the rural industrial sector more rather than the modern manufacturing sector has remained an ongoing topic of debate. (Hyami and Resnick, 1969; Berry, 1987; Ranis and Stewart, 1993). The manner in which the internal dynamism of the rural industrial sector of a developing country like India incorporates different technologies catering to divergent conditions of demand in terms of different tastes and preferences along with continuous changes in economic environment, is also an important question. Liberal policies

1 Five kinds of linkages such as, backward production linkage effects, forward production linkage effects, consumption linkage effects and capital and labour linkages, are found in the literature (Eapen, 2001)

were vigorously demanded for better performance of the manufacturing sector as a whole of developing countries like India (Tybout, 2000). India is now set on the path of economic liberalisation. From the mid-1980s, India began to liberalise her economy and since 1991 the process has been pursued vigorously with the adoption of the model of 'the three-way fast lane' of liberalisation, privatisation and globalisation (Mukherjee, 1995, Kumar, 2000). This approach emphasised growth and improvements in efficiency by encouraging private sector investment through reduction of taxes, opening up of foreign trade and investment induced by the market mechanism. In this context, an old debate about the survivability of the rural industrial sector in the process of capitalist development becomes relevant as the basic disadvantage of small-scale industries is the non-absorption of economies of scale (Havan, 1988). The present study seeks to investigate the organisational structure of the rural manufacturing sector, the dynamics of its organisation, the scope of rural industries to imbibe technology and to cater to the requirements of the market, following economic liberalisation.

2. Organisational Transformation and Scope of Rural Industrialisation

Historically, industrial development of both the West and the East presents contrasting pictures. On the one hand, the linearity model founded on the historical experience of the West, implies that development is a movement away from traditional subsistence production in rural areas and towards modern industrial production in urban centres (Mies, 1981, D' Mello, 1992). On the other hand, the East Asian Experience has shown that the growth potential of rural industries is considerable, given the under-utilisation of physical labour and the entrepreneurial ability of rural people (Cooks, 1984; Islam, 1987).

2.1 Linear Transformation

Anthropologists (e.g., Geertz, 1963) and economists (e.g., Rostow, 1960) have viewed Third World industrial development from the

perspective of the English Trajectory[2]. Some of these authors have emphasised that this process would not be a step-by-step replication of the Western path and would only proceed through a combination of outside help (for example, technical assistance, credit) and self-help (for example, internal capital formation) (Ray, 1991). Hymer and Resnick (1969) and Resnick (1970) observed a continuous shrinkage of the Z-good (i.e., rural industries) sector in the Philippines, Burma and Thailand. Extinction of this sector is, according to them, logically inevitable since the Z-good sector becomes inferior in the course of agricultural development[3]. Little, Majumder and Page (1987) observed that household manufacturing, which is confined to a few industries and is most prevalent in rural areas, has declined relatively in all such developing economies (Colombia, India, Korea, Malaysia, Philippines, Taiwan). In recent years the small-scale sector is observed to have shrunk in size with significant sections of it remaining in dire straits (Saith, 2001). Saith and Tankha (1997), Dreze (1997) and SRUTI (1995) observed that there has taken place a general decline in the number of rural artisans working in this sector in a wide range of traditional product lines and services.

In fact, well before the beginning of mechanised industry, rural industry expanded without major changes in the techniques or scales of production, an expansion recently termed as 'proto-industrial, - a form of 'industrialisation before industrialisation'. Initiated by Mendels, the idea was further developed by Medick, Kriedte and Schlumbohm (Houston and Snell, 1984). That type of industry - the traditionally organised, principally rural, handicrafts under the putting out system - barely fits the image of a modernising economy. The growth of 'pre-industrial industry' may be considered a part and parcel of the process of

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2 'European trajectory path' is considered to be household-workshop-putting out system-manufacture-factory production.

3 This is known as Hymer -Resnick Hypothesis based on East Asian Experiences.

'industrialisation' or a first phase[4] which preceded and prepared modern industrialisation proper (Mendels, 1972). Under the putting out system, artisans owned or possessed the instruments of production (occassionally supplied by merchants) and the merchant capitalist advanced the circulating capital (wage fund and raw materials). The core of the artisans' instruments was the tool, which directly interacted with the materials to change their shape based on rudimentary technology (i.e., handicraft skill) that did not need a detailed division of labour. This pattern of production was considered a pre-capitalist form of organisation (Khasnobis and Nag, 2001).

The Industrial Revolution of England is identified with the techno-economic transformation which began in the eighteenth century and it presents the first historical instance of the breakthrough from an agrarian, handicraft economy to one dominated by mechanised manufacture[5] (Landes 1969). Under capitalist production relations, the nature of labour process is characterised by definite forms of production[6] which in turn are heavily based on the level of development of the instruments of

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4 "This first phase which I call proto-industrialisation, was not only marked by the rapid growth of traditionally organised but market-oriented, principally rural, industry" (Mendels, 1972).

5 In some sense, the factory form of industrial commodity production in modern Europe was, for Marx, the outcome of a historical progression of forms leading from the independent household to the workshop and, then, to the manufactory in medieval Europe [Marx (1976), Vol. 1: Ch.11]. The successive development of these forms represented, for him, both the integration and the realisation of the potentialities contained in the prior and simpler forms in European as well as in non-European, socio-economic formations (Marx, 1976).

6 "Production organisation broadly deals with the management of the means of production and the methods over the labour process" (Singh, 1990: 109). The forms of production organisation are cooperation, manufacture and machinofacture or factory etc.

labour[7] (Singh, 1990: 22-3). Instruments of labour not only supply a standard of the development which human labour has attained but are the indicators of social conditions under which labour is carried on (Marx, 1867).

The process of modern economic growth is necessarily associated with a major shift of labour from rural areas to urban industrial centres. In this process, manufacturing activities in rural households and small workshops are out-competed by factory competition in the urban centres and the displaced artisans are transformed into de-skilled migrant proletarians with only raw labour power to offer to the modern capitalist sector. In due course, when the process is complete, the rural industrial sector gets shorn of all household-based cottage or handicraft industry, with such processes now relocated and concentrated in industrial centres with massive advantages of agglomeration, scale and proximity. Household handicrafts and cottage industries catering to localised markets, and producing with simple techniques on a micro-scale without any significant division of labour, get represented as inefficient in relation to modern larger-scale counterparts. The size of the market enables a wide degree of specialisation and division of labour, which in turn allows specialisation in techniques and instrumentation, including possibility of mechanisation, which enable lower unit cost, higher labour productivity and entry into other markets. Thus, rural industry is either often taken in, or transformed or displaced. In this paradigm, rural industrialisation has little role or chance of survival in the face of modern capitalist industry. This transformation process has been conceptualised in this manner by all economists from Smith to Marx to Lewis and to Kuznets (Saith, 2001: 83-84). In practice, under Capitalism, the nature of the human labour-process continues to transform itself as Capitalism

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7 Instruments of labour are those means of labour which are used as direct conductors of man's influence upon the object of labour and which cause a corresponding alteration in the latter through their properties (mechanical, physical or chemical). All types of machines, gears, lathes and other implements are examples of instruments of labour (Singh, 1990: 12-7).

passes through various forms of production organisations in a unidirectional way.

However, Smith had a progressive view regarding the labour displaced from the rural and small-scale sector, who would be employed in modern industries with even higher real wage rate because the benefits of industrialisation would percolate down. However, Ricardo directly negated this view because of the displacing effects of modern industrialisation, which would not reabsorb workers. Marx established in radically and ideologically different ways that the capitalist system has an inherent tendency towards the creation and reproduction of a reserve army of surplus labour which loses ownership over productive assets. Consequently, rural industry would be distracted in this process of concentration through, (a) the growth in constant relative to variable capital and (b) the growth in the fixed portion of constant capital (i.e., in buildings and machines relative to raw, processed, and auxiliary materials). Hence, survivability of small-scale production faces a threat in the face of the ever- increasing trends of the average size of the productive unit (Sweezy, 1969; Tyabji, 1989).

In recent years, theories on production organisation support growth of the firm under factory organisation as a non-market form in the market environment. The explanations behind the modern factory form of production organisation by the superiority of the firm over market transactions in different ways, was initiated by Coase (1937) and then developed by Knight (1946), Simons (1952), Alchian and Demsetz (1972) and Williamson et al. (1975), Putterman (1986), and Demsetz (1997).

Under the putting out system, inputs are organised largely through market negotiation (Alchian and Demsetz, 1972). Nevertheless, Coase (1937) points out that market does not operate costlessly[8]. Economy in transaction costs is the basis for the existence of the firm. A factor of

8 "The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism." Coase (1937)

production (or the owner thereof) does not require to make a series of contracts with the factors with whom it is cooperating within the firm, as would be necessary under the putting out system. Ceteris Paribus, the higher is the cost of transacting (including information cost) across the markets the greater will be the comparative advantage of organising resources within the firm. While organising production through the firm, a class emerges which has more intelligence than others in forecasting future uncertain events. In this respect long-run contracts within a firm are preferable to the factor-owners as well as to the entrepreneurs for eliminating or reducing uncertainties and getting more returns (Knight, 1946). Alchian and Demsetz (1972) hold that the rationale of firms arises out of the benefit accruing from team production, under which the problem of non-identification of marginal productivity of a particular worker and 'shirking' among workers can be identified and eliminated by setting hierarchical systems over labour process within a firm. Hence, a firm should have a hierarchical monitoring mechanism leading a residual claimant to effective functioning. Supporting the views on the efficiency of the hierarchical system to monitor team production, Williamson et. al. (1975) mentioned two other important factors, e.g., 'opportunism' and a condition of 'information impactedness' behind the existence of a firm. Therefore, since the formation of firm as factory is effective, existence of non-firm household or non-directory types of organisation would fall in dire straits.

2.2 Persistence of Differential Organisation

On the other hand, coexistence of different forms of organisation was observed during periods of transition of developed economy and in developing economies. In the case of development of capitalism in Russia, Lenin (1964: 374) observed that in the transitional stage a variety of capitalist and pre-capitalist forms existed. Broadly, six distinct structural forms of production organisation were found in the country side namely, natural production (for domestic consumption), artisan

production (articles made to the order of a customer), commodity production on a small scale (where merchants mediate between producers and the market), simple capitalist cooperation (putting-out or parallel production in a workshop), manufacture (in cooperation with an increasing division of labour), and factory production or machinofacture (furthered division of labour and economies of scale). As the size of capital increased, the owner and his family members gradually switched over from being directly in the labour process as manual labour, to indirect functions namely undertaking supervisory, commercial and other entrepreneurial activities.

A lot of observations proved that even in advanced capitalist economies, labour- intensive forms of industry persisted[9] long after the factory form had been achieved (Cooks, 1984). One of the big differences between the industrialisation in Western Europe and that in the developing countries of today stems from the earlier proto-industrialisation of the European countryside (Tilly and Tilly, 1971: 184). For example, supra household, if non-factory, forms of industrial commodity production occurred earlier in several non-European societies and are referred to as the 'Asiatic mode of production'. These forms encountered the household-based economy as a timeless, trans-epochal 'domestic mode of production' with a logic that was presumably equally operative among the eighteenth century Europeans and the twentieth century Asians, Africans and Latin Americans, even among 'tribal' peoples of ethnographic present[10].

Rural industrialisation constituted an indispensable part of the East Asian miracle (Ho and Huddle 1976; Yang, 1994). Labour-intensive

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9 Shetty (1963: 2) emphasised that 'small-scale industries are not necessarily transitory ……. inevitably to be replaced by large-scale units as economic development and industrialisation progress.' See also Landes (1969: 118-19)

10 Neolithic Industrialization which emphasised the role of industrial commodity production in the division of labour underwent an important transformation after the emergence of settled village agricultural economies. Industrial commodity production in the Neolithic epoch had outstanding common features of many Neolithic societies such as woodworking, pottery, manufacture, and a textile industry' (Cook, 1984).

traditional forms of production are not disappearing, but persisting or even expanding as capitalist industrialisation is intensifying in developing countries (Bottomley, 1965; Ho and Huddle, 1976; Mies, 1981; Kriedte, et al. 1981; Cook, 1984; Papola, 1987; Nagraj, 1987; Ray, 1991; Krishnaraju, 1992; Biswas 2001A, 2003B). However, experiences of rural industrialisation varied remarkably from the two ends of a wide spectrum in East Asian countries (particularly, across four countries, viz. Japan, Korea, China and Taiwan). The diversity arose from different natural resource endowments, and from different historical experiences of development, especially in the nineteenth century; but to a significant extent, it arose also from the distinct national development strategies pursued, and the role assigned to rural industries and other non-farm activities within these strategies (Saith, 1987). Scholars mostly showed two seemingly contradictory tendencies in the capitalist world system during the 1970s to the 1990s: the increasing centralisation and monopolisation of capital by large transnational corporations and flourishing small businesses, which are often family-controlled. Many of these small enterprises, both manufacturing and services-oriented, are linked to larger companies through subcontracting relations, known as the 'postmodern' pattern of industrial organisation (e.g., Rutten and Upadhaya, 1997: 21; Aleman, 2003; Vaincent-Lancrin, 2003).

2.3 Organisational Coexistence: Indian Experience

In India, there exists a well-documented account of extensive development of non-factory forms of commodity production (Ray, 1991; Roy, 1996). In most of the unorganised industries, the trader-cum-money lender's capital still has a stronghold. The transition from a household industry to a centralised system of capitalist industry is rather slow. During the pre-colonial era, industries flourished at the regional and sub-regional levels but were not organised. The mode of production was the putting out system. The tendency for merchant capital to convert to industrial capital was imminent, but was blocked by British-Capitalism-induced industrialisation in Indian soil. This form of industrialisation obstructed

indigenous potential for capitalist development and historical routes of transformation of the rural economy and the transformation of mercantile capital into industrial capital as well (Ray 1991). In independent India, industrialisation was taken as an immediate thrust area and the rural industrial sector was taken as a complementary part of over-all industrialisation. Consequently, different approaches of rural industrialisation were followed in India, viz., classical approach, Nehru-Mahalonobis approach, Gandhian approach, World Bank approach and more recently collaborative approaches comprising government and institutional support as well as policies of deregulation, from time to time (Saith, 2001). From the Second Five-Year Plan (1956-61) onwards, a programme for rural and small-scale industrialisation was given policy support along with encouragement of large-scale industrialisation. As a result, a growth of rural industrial activities were observed through ancillerisation (Nagaraj, 1987) However, support to small industries was gradually withdrawn since the beginning of the 1990s. It has been observed that as an outcome of plan support up to the 1990s, different forms of organisation, starting from household petty producers, survived along with modern factory units in the countryside in combination with outside help and also self-help. (Singh, 1990; Ray, 1991, Biswas, 2001, 2003; Maiti, 2004). The Indian Industrial Policy had provided special assistance to village and small industries and advocated their vertical linkages with the modern sector through ancillarisation and subcontracting. Consequently, since the mid-1960s there had taken place a phenomenal growth in the small-scale sector and its vertical integration through various forms of subcontracting (Nagraj, 1987, Marjit and Maiti, 2005). The labour process in rural and unorganised manufacturing ranged from the pattern of classical putting-out system to modern manufacture.

In this context, important questions can arise: How sustainable is rural industry in a liberalised era, being smaller and more household-based than the modern sector? To what extent can it have access to market and how? What kind of organisational change does take place in the

market environment? The literature on such questions is too scanty to offer satisfactory theoretical answers on the organisational dynamics of the rural industrial sector. Because of this lacuna, the present study seeks to analyse these questions with reference to some manufacturing industries of West Bengal in the context of economic liberalisation. Against this backdrop, the database for the study will be presented in section 3. Significant features of rural industries are dealt with in section 4. Features of the production stage, fragmentation and vertical linkages of the production organisation in the changing market environment and possible explanations will be discussed respectively in sections 5 and 6. The conclusions are presented in brief in section 7.

3. A Profile of the Study Area

3.1 The Data

A study on production organisations and their dynamics requires adequate quantitative and qualitative data. Secondary data relating to production organisations of rural industries are not available. Data published by DGCIS (Directorate General Commission for Intelligence Statistics) have been used to estimate the growth of handicraft exports, a large part of which is produced in the rural industrial sector (Census of handicrafts, 1995-96). Census data and NSS data are also used, but are not sufficient for our purpose. Because of the limitations of the secondary data, we have undertaken a detailed primary survey. West Bengal possesses diverse types of crafts culture and rural industries across villages, blocks, districts and regions. No secondary source provides ready information on these details. Keeping in mind these limitations, the primary survey has adopted the multi-stage stratified random sampling method to select sample industrial units from the state.

West Bengal is purposively chosen due to agro-economic factors such as a crafts heritage and a high proportion of rural manufacturing workers. Four districts are selected on the basis of stratified random sampling from districts which are advanced in aspects of rural

industrialisation and districts which are backward in this respect. The industrialisation status of the districts was reckoned in terms of the percentage share of the total main workers[11] engaged in rural manufacturing (including households and other-than-household industries). A district with not less than 8 percent workers in rural industries is considered relatively advanced; those with less than 8 percent are considered backward (Census of India, GOI, 1991). Two sample districts are drawn from each stratum randomly in stage I. Nadia and Midnapur form the advanced stratum and Bankura and Purulia from the backward stratum were selected. (Table 1). For each district, the list of industrial units was prepared with the help of district level officers and knowledgeable persons (at District Industrial Centre, Zilla Parisad, Gram Panchayat levels) for two sets of industries, viz. common set of industries and district-specific industries[12]. Two common industries from the common set and one district-specific industry have been randomly selected from each sample district[13].

From each sample district, a list of blocks by types of industry was prepared in the same way. One block for each industry is randomly selected in stage II. Within a block, all villages do not strand on a comparable footing with regard to rural industrialisation; some villages

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11 Percentage shares of rural workers engaged in manufacturing, processing and repair to total main workers were taken from Census, 1991.

12 The common set of industries includes industries available in all sample districts, e.g., handloom industry, wood & wood product industry, iron & grill factory, brassware, jewellery, embroidery etc. On the other hand, industries which are specific to a particular district, are called district-specific industry, e.g., clay-making, hat-weaving in case of Nadia district; hornware, mat, and zari in the case of Midnapur district; conch shell, docra, and terracotta in Bankura district and lac, and *chaw m*usk in Purulia district.

13 Our selected common industries are handloom and brassware and the district-specific sample industries include clay works of Nadia, hornware of Midnapore, conch shell of Bankura and lac works of Purulia.

do not even have sufficient number of artisans. Therefore clusters[14] of villages were randomly selected for each industry from the sample blocks in stage III. Then, an organisation-wise list of production units for every sample village or cluster of villages was prepared and 15 units from each production organisation were selected randomly in stage IV. In cases in which only one production organisation existed in a cluster, 30 units were selected. From the sample 356 units of proprietor households which comprised 149 independent units, 162 tied units and 45 units under cooperatives were selected for detailed survey. Reference Period for the study was the financial year of 2001-2002 (Table 1).

3.2 Rural Industries in West Bengal : A Profile

The West Bengal economy heavily depends on the performance of its rural sector. About 34.2 percent of its workers were cultivators or agricultural labourers in 2001. Rural manufacturing is the sector which comes next in the matter of employment. This is the case of India as a whole also. Employment in the sector (NSS, 55th round), is mostly informal and household-dominated. Available data[15] in India show that the number of rural manufacturing units (registered and unregistered) increased rapidly during 1970-71 to 1993-94 in terms of their share in the net domestic product (NDP). NDP of manufacturing (registered and unregistered manufacturing combined) increased from Rs. 1346 crores in 1970-71 to Rs. 30885 crores in 1993-94 in the rural area showing an increase from 25.8 percent to 29.8 percent during this period. The percentage share of rural unregistered manufacturing in NDP increased from 23.1 percent to 30.1 percent while the percentage share of registered

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14 Cluster means the combination of a few villages in which a particular type of industrial activities dominated. Selection of one particular village could not provide sizable number of sample units.

15 See Economic and Political Weekly Research Foundation, *Annual Surveys of Industries – Key Statistics*, 2001.

manufacturing in NDP also rose from 28.1 percent to 29.3 percent during the same period.

According to Census of India[16], the total number of main workers (persons) engaged in household industries increased impressively from 2.39 lakhs to 6.38 lakhs in West Bengal during 1971-91 while the number of male and female workers increased from 2.03 lakhs to 3.91 lakhs and from 0.36 lakhs to 2.47 lakhs respectively during the same period. The total number of main workers in other-than-household industries increased from 3.32 lakhs in 1971 to 9.40 lakhs in 1991 in West Bengal, the corresponding increase in the number of male and female main workers being from 3.14 lakhs and 0.18 lakhs in 1971 to 7.45 lakhs and 5.44 lakhs in 1991 respectively. As a whole, the total number of main workers in rural industries (household industries and other-than-household industries combined) grew 3 times during 1971-91 - doubled for male workers and grew 4 times for female workers. Employment growth in rural industry comprising household and other-than-household industries, was at the rate of 8.82 percent per annum. The growth rate for male and female workers were 6.47 percent and 31.20 percent respectively during 1971-91.

In relative terms, the percentage share of workers in rural industries (household and other-than-household industry combined) registered an increasing trend in West Bengal from 6.07 per cent in 1971 to 9.10 per cent in 1981 and further to 10.44 per cent in 1991. It is also true for household and other-than-household industries as well if we take them separately. According to Economic Census data, the number of rural manufacturing units continuously increased from 3.41 lakhs in 1980 to 4.78 lakhs in 1990 and to 5.32 lakhs in 1998 and employment increased from 8.73 lakhs persons in 1980 to 12.54 lakhs in 1990 and to 15.84 lakhs in 1998. Besides, the share of workers in rural manufacturing in

16 Available data from Census of India, 2001 are not comparable with those of the previous round.

principal and subsidiary status was recorded as the highest in West Bengal and it increased from 16.1 per cent in 1993-94 to 16.7 per cent in 1999-2000 (50th and 55th NSS rounds).

4. Economic Liberalisation and Production Organisation

The impact of economic liberalisation upon the rural industrial sector of India may be examined in terms of organisational features, technology, products and markets.

4.1 Organisational Characteristics

Informal organisational features mark the rural industrial sector. Prominently, they comprise non-registration, non-maintenance of accounts, household-based activities, low level of education, seasonality, caste dominance over choice of occupation etc. Non-registration is a dominant feature among sample rural industries, except in the lac industry (Table 2). Out of 356 units, only 23.6 per cent (84 units) were registered[17]. Big units were registered, but petty household units were not. Most of the units in the lac industry were registered as per the Factory Act and Regulations. Nevertheless, most of the industrial units except those of the lac industry did not maintain their accounts regularly (Table 2). Only 22.5 per cent of the units (generally large units and units of cooperative artisans) maintained their accounts properly. Units under handloom and brassware industries located in the advanced region also maintained their accounts regularly. Almost 52.81 per cent (188) units operated within household premises while 42.98 per cent (153) units operated outside household premises in fixed locations (Table 2). Only 4.21 per cent (15) units operated outside household premises without fixed locations. Higher percentages of units located outside household premises having fixed places, were observed in brassware, clay and lac industries. In

17 Institutions like District Industrial Centre, Khadi and Village Industries Commission, Cottage & Small Scale Industries, Handloom & Handicraft Directorate, Cooperative Society etc.

other industries, household units were dominant, especially in handloom and brassware industries located in the backward region. The educational level of the rural entrepreneurs was invariably low. Thirty per cent and 49 per cent of the owners had only primary and secondary levels of education respectively while only 3 per cent of them were persons with degree or higher qualifications. In the lac industry, the level of education of the owners was marginally higher. Different government authorities (under different schemes) very often used to conduct formal training courses; occasionally non-governmental organisations and cooperative societies also conducted training sessions for raising the efficiency levels of artisans. However, only 11 per cent of the owners had taken such formal training. Trained artisans accounted for 44 per cent of total artisans; 19 percent in hornware, and handloom in the advanced region and 15 percent handloom in the backward region (Table 3). Entrepreneurship in the rural industrial sector was predominately in the hands of males. Female entrepreneurs accounted for only 2.2 per cent of the total sample units. Conch-shell and lac industries showed marginally higher proportions of female entrepreneurs (Table 4). Seasonality is considered an important aspect of rural industries, operating mainly during the agricultural lean period (Islam, 1987). However, 73.0 per cent of the units in the sample were found to operate throughout the year; only 25.8 per cent and 1.2 per cent units were seen to be seasonal and casual respectively. Except 35.3 per cent units in hornware, there was a significant proportion of perennial units in all the industries which functioned even during the peak period of agricultural activities. A few artisans in hornware (5.9 per cent) and conch shell (6.7 per cent) industries worked on a casual basis. Rural industrial activities had thus emerged as an alternative livelihood occupation to farming (Table 4). Interestingly, predominance of caste-based occupational[18] distribution of workers

18 There had existed during the medieval period a distribution system of work among people in the society based on their caste status.

prevailed. Artisans in handloom activities, known as *tanti* and *jola* (weaver), constituted 86.11 per cent of the proprietor artisans in the advanced regions; the corresponding proportion in the backward region was 93.33 percent. Moreover, 86.67 per cent of the units belonged to *Karmakar* (blacksmith) caste in the brassware industry in the advanced; in the backward region, the proportion was 100 percent. In the hornware and the lac industries the corresponding proportions were 20.54 percent and 26.67 percent respectively. *Kumor* (potter) and sankari (dealing with conch manufacturing) usually engage in clay and conch-shell works. In these industries caste dominances is total (Table 5). Thus, informal characteristics and traditional patterns mark the rural industrial sector of West Bengal even in the post reform era.

4.2 Changes in Products and Technological Diffusion

In spite of the dominance of informal characteristics in the rural industrial sector, technological diffusion and innovations in products have taken place to cater to changing consumption habits during 1991-2001. Design of products and use of raw materials are being changed in response to changes in use value as well as aesthetic standards. Modern types of products are produced along with traditional products to meet both local and outside demand. New products are made in response to new sources of demand. In handloom industries, exportable items like exclusive *sari*, tangail *sari* etc. are produced. Weavers in Midnapur recently have diversified from traditional *sari*, to napkin, duster, swab etc. Weavers in Bankura and Purulia have specialised in the production of baluchuri *sari* and tasar *sari*. In brassware industries, plate, jug, and glass are the traditional products. Nevertheless, recently artisans of Nadia, Midnapur and Bankura have shifted towards decorative items along with household utensils catering to regional demand. Crafts works of clay - like doll, toy etc. - have demand even from outside the state. Recently, the skilled artisans have specialised in artistic products and they migrate to other regions during festival time. Artisans in hornware are greatly

influenced by the increasing export demand for animal structures, spectacle frames, household decorative items etc. In conch-shell industries, there is significant change taking place from traditional products like bangles, and rings to modern decorative items such as watch frames, toys, animal structures etc. Still, bangle, ring and *sankha* are the most common items due to the persistence of rituals and artistic demand. In lac industry, two groups of artisans exist, one preparing the lac plate (known as *chapra*) from raw lac and the other group producing household utensils and decorative items from *chapra*. Both these groups have changed types and designs (Table 6).

Technological diffusion also has taken place during 1991 to 2000, 2001. Technology has changed slowly and innovation has taken place significantly to products having aesthetic value content. It should be noted that products of labour-based adaptive technology are sometimes superior to modern machine-based products in respect of artistic or aesthetic value. In the handloom industry, certain types of tools like pit-loom, *purni*, big drum etc. are modernised depending on the products, which help to increase the quality and the quantity of production in a single drum. A special type of loom is used for producing certain exclusive products as required by the design. In the brassware industry, a hammer which had been in use by artisans to work on brass is being replaced with an electrically -operated press machine. In clay works, mud structure has been replaced by cement structure, which has higher longevity. Sometimes, plaster of paris is also used to make the structure, but it is too costly. In the hornware industry, electric wheel and generator are used to polish and design the product in place of the earlier practice of brushing (sirish) with sand paper. Similarly, in conchshell works, traditional tools (like sil, dara, batali, file, bhamara) in use to cut, polish and design the product are being replaced by cutting machine and grinder machine operated electrically. In the lac industry, ship machine is used to produce *chapra* using electricity or generator instead of the traditional rope-made *chapra*. (Table 7).

5. Production Stages, Fragmentation and Formal-Informal Organisation

Several distinct stages in the production process are adopted for creation of use value as well as aesthetic value of the products, which vary across units/enterprises, products and organisations. Owing to extensive division of labour in production, specialisation increases in places in which a group of artisans performs certain stages of work at their own household premises or at workshops tied with master enterprises or mahajans. Some artisans also are engaged in work at the household level and are registered with cooperative societies. Detailed production stages and activities of sample manufacturing industries are shown in Table 8 to Table 13, which reveal the existence of extensive division of labour and specialisation leading to fragmentation of the labour process.

In the handloom industry, stages of production are different due to differences in the types of products and fibres used. For example, stages of production of tangail *sari* in Fulia are slightly different from those of the weaving of *tasar* and *baluchari sari* at Bankura and Purulia (Table 8). In *tasar* works artisans adopt certain additional steps to extract fibre from resham seed. In general, both skilled and unskilled labourers are accustomed to six distinct stages of work, viz. dubbing, drying, rolling-I, rolling-II, weaving and packing. In the backward region, most of the units get all the steps done either by household workers or sometimes by hired workers. The larger independent units and cooperatives generally perform the first two steps (i.e., dubbing and dyeing) through regular hired workers at their own factory-shade where groups of employees perform the managerial and supervision works. After these steps, raw materials are distributed to tied artisans employed on piece rate basis, but they are also processed parallely in the factory premises hiring workers on contractual basis. Some units also take raw materials from groups of merchants or traders who own fixed assets, tools and equipments of production, at fixed rates of contractual payment (locally known as *bani* rate). Besides, cooperative societies maintain

managerial, supervision and marketing jobs with fixed sets of workers and give work orders to their registered artisans who work at their own workshops in their household premises. To be an artisan member under a cooperative society prior registration, sufficient skills and fixed assets (tools, looms etc.) are required, the value of which would be treated as share capital of the society.

Similarly, spatial differences are observed in the brassware industry in the use of raw materials and types of products made (Table 9). For example, Purulia artisans prefer old bell-metal works, while Bankura artisans prefer bell-metal products but with a mix of Copper and Zinc. Midnapur artisans are accustomed to both brass and bell-metal works and Nadia artisans engage themselves in several kinds of brassware work. Broadly, seven distinct stages are commonly found. A substantial difference in terms of technology used in stages 3 and 4 is observed from pressing machine to traditional hammering, across units. None in the backward districts were found to produce independently while in the advanced districts independent production was common. A few independent artisans have factory type organisation for large-scale production. In these factory units, hired workers are used both on a daily basis and on contractual rates. Moreover, similar to the practice in handloom works, small parts of brass works (viz., structuring, polishing and designing) are performed by the tied units in the advanced region mainly with master enterprises. Tied artisans in Nadia district are highly specialised in particular types of jobs like structuring, polishing or designing as well as producing particular products. Tied artisans in Bankura and Purulia generally perform all the stages of work. No cooperative[19] units were found in the brassware industry in the sample region.

19 There were certain cooperatives in brassware industry in the sample regions, but these were found inactive.

Nadia has a long tradition of clay works, which are predominantly household-based, where artisans mainly produce aesthetic value-oriented products. Therefore, highly artistic and skillful labourers are required to transform raw clay into artistic models (Table 10). Broadly, six stages of work are involved. Both men and women participate in every part of the work while owners or artisans independently manage and produce taking the help of household labourers. A few units also employ hired labourers as assistants to master artisans, on daily wages and mid-day meals at the owners' houses. The stages of works are distinctly separated, workers engaging in different jobs assigned to them. Artisans shift to other places during festival seasons.

Artisans in the horn industry produce mainly aesthetic, decorative and exportable items involving six major steps of work, which marginally differ across products (Table 11). The majority of artisans are engaged under cooperative societies. A few independent producers operate in household workshops or factories involving some hired labour on contractual basis, where all the supervision, management and some parts of the work are done by family workers. Independent producers offer also some parts of manufacturing to tied artisans. Petty, small, tied and cooperative artisans are all specialised, but each in certain specific jobs or products. Tied artisans generally do all works in household premises while cooperative artisans access common workshops. And a cooperative society has two to three employees on fixed wages to look after managerial and marketing jobs.

In conch-shell industries, six stages of works are found in general, each using simple tools, cutting machines or grinder machines (Table 12). Both independent and tied artisans are found in this industry, specialised in certain artistic and decorative products. Independent units perform two or three stages, e.g., rubbing, polishing, pasting etc. at own workshops and offer the products to tied artisans on contractual terms.

In the lac industry, production is performed mainly in workshops or factories, where broadly seven steps of work are taken to produce lac bottom *(chapra)* from raw lac (Table 13). Owners carry out production independently using hired labourers; and occasionally they take assistance also from household workers. Both skilled and unskilled labourers of either sex are engaged in different jobs on regular or contractual basis. In this industry, simple tools as well as the crusher and ship machines are adopted to melt raw lac. There exists wide division of labour, especially due to introduction of crusher machines and development of the production process. Some groups of specialised hired workers are paid on daily basis with some bonus also paid in the factory units; the rest of the workers get contractual wages.

It is evident from the foregoing discussion that different forms of production organisation prevail in the rural industries.

(1) The production process clearly reveals three forms of organisation, independent, tied and cooperative, a fact which confirms the coexistence of the putting out or the subcontracting process with the firm or the factory process (Table 14). Independent units possess own fixed and working capital, and entrepreneur artisans have control over the production process, types of production and marketing channels. Tied units possess fixed assets for production but largely depend on (i) mahajan, contractor, middleman or (ii) master enterprises who supply raw materials. Units under the cooperative societies also maintain fixed assets for production but they function under the management of the cooperative society which supplies the basic raw material for production.

(2) Increase in the size of the market enables detailed division of labour and specialisation leading to technological diffusion. It is observed that different types of technology and human skill are used in the production process across rural industries to produce

use value as well as aesthetic value. Detailed division of labour is established and the process of production is fragmented among different units. In this fragmented process, artisans work according to order given by the merchant capitalists or the master enterprises. Intensity of division of labour and specialisation depends upon the level of development of the region and the extent of fragmentation. Though workers possess the tools and the workshops, they are under the tight control of trader masters. Proprietor artisans are seen to have taken raw materials from the shops[20] of *mahajans* or from factories of master artisans (without any transport cost compensation) on credit who deliver them through the middlemen engaged by them on commission basis.

(3) Cooperative artisans are like tied units, but they have benefited from the cooperative societies by way of loan, bonus, training, coverage of damages, etc. and enjoy some democratic rights too. A society mainly takes the work order from big traders at the regional, the national or the overseas levels or from government or non-government agencies and acts as the marketing agency for the products. The total volume of work is distributed among the members according to their work ability. The society supplies bulk of the raw materials and receives the finished products at the fixed contractual service charge (i.e., *bani* rate). Moreover, the cooperative society organises different kinds of training and workshop to raise artisan skills and the quality of the products. More than one person of a family may receive registration of the society if they posses additional looms. If they are unable to receive registration, they sometimes make separate arrangements for tying with the mahajan and the master enterprise. In tied units, the merchant capitalist and the proprietor artisans share

20 See Government of West Bengal (1975), Report on the enquiry into the existing working condition of the workers of Bell-Metal and Brass-Metal Industry (Information and Public Relation Department).

whatever surplus is generated while in a cooperative society, a certain proportion of the surplus is used for administrative, managerial and marketing purposes because a society takes care of the marketing of the products. Cooperatives market the products through government and non-governmental agencies (e.g., *Manjusha, Tantuja, Bangashree* etc.).

(4) Rural manufacturing activities do not necessarily operate on a petty scale; rather they have been transformed into workshops, manufactures as well as factories. The producing units are not homogenous; rather they are differentiated by size[21]. Units are defined into own account enterprise, non-directory enterprise and directory enterprise in terms of the labour dependence ratio, i.e., the ratio of hired to household workers (Table 14). Overall, 51.7 per cent of the independent units (77 units) are OAME (Own account manufacturing enterprise) which work absolutely on unpaid household labour while 27.5 per cent (41 units) independent units are NDME (Non-directory enterprise) which operate on hired workers in addition to household labourers. The remaining 20.8 per cent independent units (31units) belong to DME (Directory manufacturing enterprise) running their production absolutely based on hired labourers. Only 13 per cent tied units and 15.6 per cent units under cooperatives use hired labourers to some extent along with household labour. No single tied or cooperative unit depends absolutely on hired labourers. Almost 87 per cent of the tied and 84.4 per cent of the cooperative units respectively operate absolutely with household workers.

21 Different methods of segregation of a production unit are available in the literature based on size of workers, hired workers, capital, output etc. Lenin (1964) pointed out that development invariably gives rise to formation of small, medium and large-scale industry in new locations, including the countryside. CSO defines the form of enterprises according to the size of workers. Singh (2001) classifies enterprises according to the number of workers employed. Household units are those which employ 1-4 workers while workshop and factory are those which involve 5-9 and over 10 workers respectively.

Overall, 72.0 per cent and 19.3 per cent of the units are OAME and NDME respectively and the remaining 8.7 per cent units are found to belong to DME. Thus, almost three-fourths of rural manufacturing units operate absolutely on household workers. A worth noting point is that even tied and cooperative units employ hired labourers.

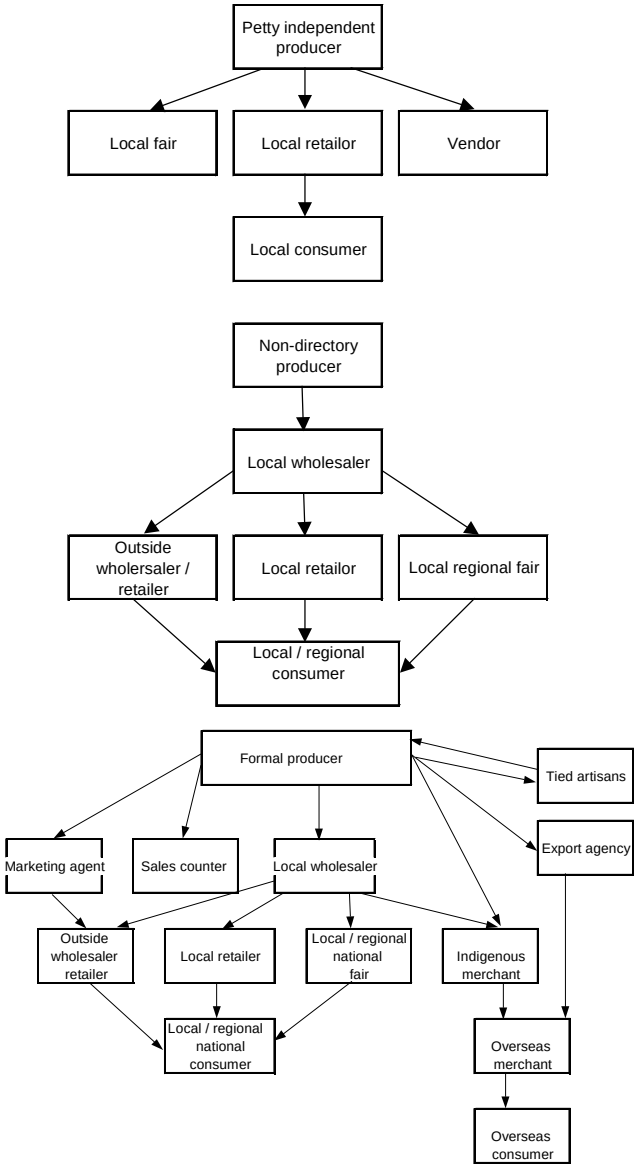
(5) A few larger units employ skilled labour on the basis of daily wages plus some other benefits while contractual payment is dominant. At the household level of production, both men and women are involved in the production process. Even within the factory or the workshop, workers are assigned jobs on piece rate basis (or hiring and firing basis). In very few cases, mahajans, traders, or master enterprises bear and share the damage of tied artisans. The tied units, seemingly independent, are dependent on merchant capitalists or factory owners for survival (Banerjee, 1994).

(6) There is a view that rural industries are able to flourish depending upon local resources and local demand. However, it is observed that some of the sample industries have significant growth potentialities since they have regional, national and even international marketing networks. In conch-shell, lac and hornware industries, producers residing in remote rural areas have links with important cities and towns directly or through traders or formal producers. Raw materials for conch-shell industry come from coastal towns of southern India, and traders from different towns purchase and take away the final product. Some hornware units directly transact with export merchants or marketing agencies dealing in trade to Japan, Germany etc. Similarly, upswing of the lac market is totally dependent on the export market. Products of rural industries have significant aesthetic content, varying across region and products. Artisan are observed to produce products in demand and to trade them in the national

and the international markets, for example, tangail *sari* of Fulia, baluchuri sari of Bankura and Bishnupur, lac products of Balarampur, conch products of Hatagram, horn products of Bishnabchawk, *tasar sari* of Nuagargh etc. The market for any product expands due to its high aesthetic content and low cost. A few artisans in handloom industries at Fulia are specifically engaged in the production of Japanese type cloths. Artisans in brassware industry at Matiari engage in production of products of regional demand. The major marketing channels are door-to-door sales, sales in hatt, bazaar etc., supplying the product to fixed sellers, sales through own counter, contract with local trader; or middlemen of traders, contract with master artisans, or wholesale traders, or exporters and export agencies, sales through own salesman, through advertisement, contracts with cooperative society, marketing societies, fairs etc. Moreover, small independent artisans suffering from dearth of working capital and proper information about the market carry on sales within the local level (vendor and local retailer). Limited asset endowments, structural bottlenecks of the rural economy and information gaps make petty artisans almost entirely incapable of receiving institutional loans for capital accumulation (Maiti, 2004). The higher the capital, the more diversified would be the market channels available. While small independent artisans without own shops are able to sell their products to wholesalers who have intimate and strong market connections, those who own shops receive diversified market channels to reach local consumers and also local wholesalers and even indigenous merchants. Thus, formal or directory units have diversified marketing channels whereas small and petty units depend on the local market; but in order to avail the external market they get tied to master enterprises (or formal producers) and traders (See Diagram 1).

Diagram 1

Schematic Representation of Formal and Informal Marketing Channels of Independent Producer for Final Products



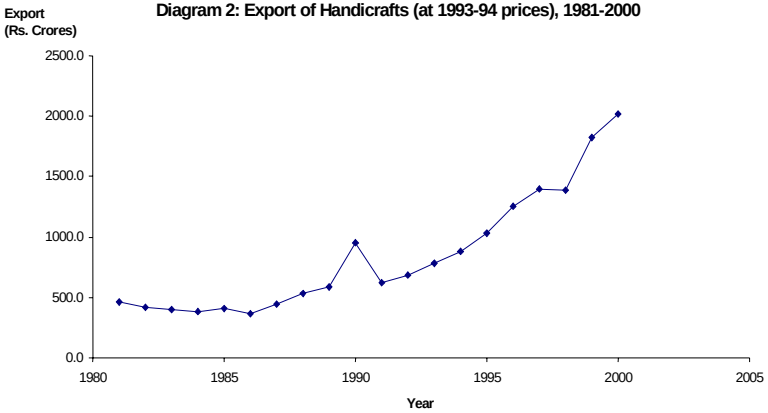
6. Reasons behind Coexistence and Dynamics of Organisation

Not only have different forms of organisation persisted in the rural industrial sector, organisational forms have also shifted following economic liberalisation. The share of independent units has declined from 44.38 per cent in 1991 to 41.85 percent in 2001. Moreover, units under cooperatives have declined from 34.56 per cent to 12.64 per cent during the same period. Consequently, the proportion of tied units increased from 21.07 per cent to 45.51 per cent during the past 10 years. Tying or subcontracting or putting out has become the dominant mode (Table 14).

Why is there such a shift? The simple answer would be, due to fragmentation of the labour process to keep pace with the market economy. The essential pre-condition of growth of an industry, however small, is the demand for its products. The demand for products is dependent upon the behaviour of three types of market, viz., local, national and international. The local demand for products of rural industries is not sufficient due to the low purchasing power of rural masses; but the demand is expanding in national and overseas markets. The markets of products and raw materials have widened (Table 15 and Table 16). There has been a significant growth of handicrafts exports due to the steadily increasing demand from developed countries in the era of economic liberalisation (Diagram 2). On the other hand, it should be noted that the Indian rural economy is ridden with severe structural backwardness, in respect of communication and transportation facilities, information networks as well as unemployment or underemployment, asset inequality, etc. Benefits from increases in demand do not reach all sections of rural industrial entrepreneurs due to differences in capital endowments and information networks. Information regarding the market becomes hardly accessible on account of the strategy of having 'information impactedness' and 'opportunism' (Williamson, 1975) of large units. For example, the Minerals and Material Trading Corporation (MMTC) of India used to supply foreign scrap to artisans. After

introduction of the Open General License (OGL) system, the MMTC discontinued the earlier system since at present, any individual can import scrap directly from aboard. The household-based artisans receive scrap through traders or master enterprises owing to their paucity of funds; the big merchants and traders (mahajans) have eventually captured the import market. Most of the artisans rely on traders for raw materials and it is the latter who control the prices, quality and frequency of the supplies.

Diagram 2: Export of Handicrafts (at 1993-94 prices), 1981-2000



Nevertheless, a few formal independent producers have taken advantage of the national and international markets and managed to expand their enterprises. Master enterprises (factory owners) and mahajans/traders offer subcontracts. Firstly, whatever information is received through their own mechanism they hardly care to disseminate due to strategic considerations of 'information impactedness' and 'opportunism'. Secondly, factory owners minimise the costs of production by employing workers informally since the informal wage rate is lower than the formal wage rate (Marjit and Kar, 2004; Marjit and Maiti, 2005). No union pressure is experienced in informal labour markets. Giving work order to informal artisans, thereby saving some amount of supervision or monitoring cost and avoiding production risks by advancing raw materials and inputs to artisans who give back finished products as per contract, are the practices usually followed. It is the tied artisans who bear the risk of loss if any

incurred during the production process. Finally, there exists chronic unemployment and underemployment in the rural economy. It may be argued that in the labour surplus economies of developing countries like India characterised by socio-economic constraints on mobility of factors including labour, market negotiation may not entail large transaction costs in the form of information, negotiation, monitoring, and enforcement costs. Since the opportunity cost of labour particularly during agricultural slack seasons tends to be zero, transaction costs on the part of the artisans appear to be zero too. Therefore, non-firm transactions are not so costly as in advanced countries.

Why do informal artisans or petty producers take subcontract instead of undertaking independent production? Obviously, it is their survival strategy. Changes in tastes and consumption patterns, and in the quality of products create new demand. Petty independent producers cannot compete in the market by relying on traditional production methods, given the structural backwardness of the rural economy and the limitations of their capital endowment. If an artisan becomes a tied unit, he may be able to save on working capital, the opportunity cost of which is significantly high. Secondly, risks relating to the realisation problem confronted within the market can be eliminated. Thirdly, artisans can remain specialists in the production process ignoring dynamics of the local market. Owing to specialisation and skill formation, some artisans manage to receive lucrative prices due to the aesthetic content of their products. Fourthly, own household premises can be used as workshop the opportunity cost of which may not be high (Islam, 1987). Fifthly, the owner artisan is able to save mandays that would be lost due in marketing and other activities. The unemployed household members could be used as workers too. Lastly, tied artisans often receive benefits and advantages such as consumption loans, advance payments, etc.

Shifts from the cooperative mode to the tied mode take place simply due to administrative failure of the cooperative organisation. Profit-sharing firms often face the problem of 'shirking' in team production, a

problem which leads to monitoring costs (Alchian and Demsetz, 1972). In the present system, shirking is not a serious problem among workers, because production units are kept separate. Cooperative was considered a better organisation to get rescue artisans from the clutches of traders-mahajans nexus, to organise rural artisans and sell to the national market on competitive basis, by reaping the economics of scale. Government support was available for production activities (including supervising, training, loans, grants, and subsidies, banking facilities, marketing networks, etc.). Government agencies usually purchased the produce of cooperatives. Consequently, there was significant growth of cooperatives during the 1960s and the 1970s, but the growth was affected adversely due to malpractices of bureaucrats, withdrawal of assistance to cooperatives and delays in payments to artisans. Hence, disloyalty[22] comes mainly from the part of the administration rather than of the artisans. Managers of the organisations show favourism in the distribution of work order, frequently snatching away large work orders from cooperatives and giving them to independent producers for illegal gratification. There exist a lot of financial malpractices due to the illegal nexus among managers, politicians, traders, and government officials of development agencies, which deprive innocent artisans of their potential benefits. Consequently, artisans do not get any surplus other than their wage income and even that after long delays (sometimes after 6 to 12 months) which affects their consumption smoothing. Hence, artisans become reluctant to join cooperatives.

7. Concluding Remarks

The rural industrial sector in India is considered a potential source for employment and income generation for the rural masses even if agriculture and the modern sector have failed to generate adequate

22 In Fulia, three big cooperative organisations are now functioning. It was reported that the managerial member of a society stole away significant amounts of working capital. Sizeable amounts of work order received by one society from the government were diverted to the private sector after taking huge amount by way of bribe and commission, while artisans in the society suffer from lack of work.

employment. The West has experienced a unidirectional transformation process of production organisation, (i.e., from handicraft to putting out to workshop to manufacture and to factory) along the capitalist way of development in which there is little scope of rural industrialisation. Modern theories on industrial organisation also assert that the firm is a superior form of organisation to all other forms like the putting out system. The present study observes that an admixture of the putting out system or the subcontracting system, the manufacturing (and the modern factory) system and also the system of industrial cooperatives in rural manufacturing sector persists in the Indian rural sector even after economic liberalisation. It envisages the non-replicability of the Western experience of industrialisation on a step-by-step basis in India. Rural manufacturing activities do not necessarily operate only in the petty form; rather they have been transformed into the workshop and the factory modes. Steady expansion of export demand for handicrafts raises the size of the market and enables detailed division of labour and specialisation in production and fragmentation into marginal producers. It is observed that diverse types of technology and human skill are used in the production process across rural industries to produce use value as well as aesthetic value. Mostly, the organisational forms in the rural industrial sector are independent, tied and cooperative, ranging from putting out or subcontracting to firms. Differentiation among independent units is wide-ranging from petty independent household production units to factory units. Nevertheless, tied and cooperative artisans work, by and large, at their household premises. However, as long as division of labour progresses, fragmentation also increases, with increasing specialisation. A few factory units employ hired labour on daily rate basis. At household units, both men and women are involved in the production process, in which household labourers work gratis. Tied units are specialised in certain types of work and they are assigned parts or the whole work itself of particular products by master artisans or mahajans on contractual basis. The instruments of production are owned/possessed by the artisans and the merchant capitalist/middleman or master enterprises

who advance circulating capital (wage fund and raw materials). The artisans produce the product as per the design supplied and order given by merchant capitalists or master enterprises. In very few cases, masters, mahajans or traders bear and share the damage. On the other hand, cooperative artisans are akin to tied units, but they are entitled to benefits from the society in terms of loan, bonus, training, coverage of damages, etc. and some democratic rights in the production process. However, these are hardly realised in practice. A certain portion of the surplus is used for meeting administrative, managerial and marketing expenses because the society takes the responsibility of marketing of the products produced by the artisans under the aegis of the society.

Along with the coexistence of different forms of production organisation, an increasing tendency of tiedness is also observed i.e., the putting out system or the subcontracting system has flourished during the 10 years from 1991 to 2001 following economic liberalisation. Units have mostly shifted either from cooperatives to tied or independent organisations and to the putting out system or subcontracting system. Rural industrial units produce products having rich aesthetic content. Hence, there is the possibility in these organisations to adopt labour-based technology for the production of aesthetic value. With increase of national and international demand for art pieces of handicrafts, product designs, types, quality, and method of production have undergone steady change. Owing to dearth of capital, poor infrastructure, bad information network and structural backwardness of the rural economy, all entrepreneurs of the rural economy do not enjoy the benefits of increasing demand. A few large independent producers realize the advantages and produce commodities in their own factories or offer work orders to tied artisans for taking advantage of the lower wage rates prevailing in the informal labour market. Whatever information is received by them through own services, they keep it jealously, never disseminating it due to their strategy of 'information impactedness' and 'opportunism'. Besides, through subcontracting, they may use informal artisans on lower wage

rate where transaction costs for negotiation seem to be low, because of the chronic unemployment and underemployment conditions prevailing in the rural economy. On the other hand, a petty independent producer cannot compete in the market, using his traditional production methods and limited capital endowment. If he switches to a tied unit, not only can he save on working capital, managerial mandays, marketing costs, and risks relating to realisation of the products but also specialise on certain chosen items of work for the sake of consumption smoothing. Very often tied artisans also receive other advantages such as consumption loans, advance payments, etc. For the sake of survival petty independent producers have transformed themselves into tied workers.

Shifting from the cooperative mode to the mode of tied artisans takes place due to administrative failure of the cooperative organisation. Shirking is an inevitable problem in any kind of profit-sharing firm, but it is not a serious problem in rural industries because producing units are separated from one another. There was significant growth of cooperatives during the 1960s and the 1970s under a regime of government incentives; but the malpractice of bureaucrats, withdrawal of assistance and delays in payments to artisans became major problems to run cooperatives effectively. In the cooperative, desertion arises from the part of management rather than of artisans. Consequently, artisans exhibit the tendency of dominance, namely of the subcontracting process tied with factory producers, traders and *mahajans*.

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Table 1. Number of sample artisans/ units according to sample design

Stage I		Stage II	Stage III	Stage IV			
Sample Districts	Sample Industry	Sample Block	Village & Village Cluster Selection	Sample units/artisans under Production Organisations			
				Ind.	Tied	Cooper.	All
Nadia	Handloom	Santipur	Fulia	12	15	15	72
	Brassware	Krishnagang	Matiari	12	15	0	27
	Clay works	Krishnagar-I	Sadhanpara	20	0	0	20
Midnapur	Handloom	Tamluk	Nilkunthia	15	15	0	30
	Brassware	Mahishadal	Ektarpur	3	15	0	18
	Hornware	Panskura-II	Baishnabchawk	12	7	15	34
Bankura	Han'dloom	Bankura-I	Kenjakura	15	15	15	45
	Brassware	Bankura-I	Mogra	0	30	0	30
	Conchshell	Indpur	Hatagram	15	15	0	30
Purulia	Handloom	Purulia	Nuagarh	15	15	0	30
	Brassware	Manbazar-I	Gopalnagar	0	20	0	20
	Lac works	Balarampur	Balarampur	30	0	0	30
Total				149 (41.85)	162 (45.51)	45 (12.64)	356 (100)

Source: Field Survey

Note: Figures in parenthesis represent percentage shares

Table 2. Industrial Units by registration, account maintenance and location

Industry	Registration status		Account maintained		Within household premises	Outside household premises with fixed location	Outside household premises without fixed location
	Yes	No	Yes	No			
Handloom (AR)	22 (30.6)	50 (69.4)	20 (27.8)	52 (72.2)	45 (62.5)	27 (37.5)	0 (0)
Handloom (BR)	15 (20.0)	60 (80.0)	12 (16)	63 (84)	56 (74.67)	19 (25.33)	0 (0)
Brassware (AR)	8 (17.8)	37 (82.2)	8 (17.8)	37 (75.2)	10 (22.22)	35 (77.78)	0 (0)
Brassware (BR)	0 (0.0)	50 (100)	1 (2)	49 (98)	22 (44.00)	28 (56.00)	0 (0)
Clay works	5 (25.0)	15 (75.0)	4 (20)	16 (80)	5 (25.00)	12 (60.00)	3 (15.00)
Hornware	7 (20.5)	27 (79.5)	7 (20.6)	27 (79.4)	20 (58.82)	5 (14.71)	9 (26.47)
Conchsell	6 (20.0)	24 (80.)	3 (100)	27 (90)	25 (83.33)	2 (6.67)	3 (10.00)
Lace works	21 (70.0)	9 (30.0)	25 (83.3)	5 (16.7)	5 (16.67)	25 (83.33)	0 (0)
Total	84 (23.6)	272 (76.4)	80 (22.5)	276 (77.5)	188 (52.81)	153 (42.98)	15 (4.21)

Source: Field survey & Note: Figures in parenthesis represent percentage share; AR: Advanced region; BR: Backward Region

Table 3. Level of Educational of owners of units by industries

Industry	Illiterate	Primary	Secondary	Higher Secondary	Graduate & above	All	Formal Training
Handloom (AR)	4 (6)	51 (71)	10 (14)	4 (6)	3 (4)	72 (100)	14 (19)
Handloom (BR)	0 (0)	15 (20)	52 (69)	2 (3)	0 (0)	75 (100)	11 (15)
Brassware (AR)	6 (13)	7 (16)	27 (60)	5 (11)	1 (2)	45 (100)	0 (0)
Brassware (BR)	0 (0)	13 (26)	37 (74)	0 (0)	0 (0)	50 (100)	0 (0)
Clay works	3 (15)	4 (20)	12 (60)	1 (9)	0 (0)	20 (100)	0 (0)
Hornware	2 (6)	7 (21)	24 (71)	0 (0)	1 (3)	34 (100)	15 (44)
Conchsell	14 (47)	3 (10)	10 (33)	2 (7)	1 (3)	30 (100)	0 (0)
Lac works	2 (7)	8 (27)	4 (13)	10 (33)	6 (20)	30 (100)	0 (0)
Total	31 (9)	108 (30)	176 (49)	24 (7)	12 (3)	356 (100)	28 (11)

Source & Note: Same as Table 2

Table 4. Ownership by sex and nature of operation

Industry	Ownership by sex		Ownership by nature of operation		
	Male	Female	Perennial	Seasonal	Casual
Handloom (AR)	70 (97.2)	2 (2.8)	51(70.8)	21 (29.2)	0 (0)
Handloom (BR)	74 (98.7)	1 (1.3)	58 (77.3)	17 (22.7)	0 (0)
Brassware (AR)	45 (100)	0 (0)	40 (88.9)	5 (11.1)	0 (0)
Brassware (BR)	50 (100)	0 (0)	37 (74.0)	13 (26)	0 (0)
Clay works	20 (100)	0 (0)	15 (75.0)	5 (25.0)	0 (0)
Hornware	34 (100)	0 (0)	12 (35.3)	20 (58.8)	2 (5.9)
Conchsell	28 (93.3)	2 (6.7)	25 (83.3)	3 (10.0)	2 (6.7)
Lac works	27 (90)	3 (10)	22 (73.3)	8 (26.7)	0 (100)
Total	348 (97.8)	8 (2.2)	260 (73.0)	92 (25.8)	4 (1.2)

Source & Note: Same as Table 2

Table 5. Caste dominance over choice of entreprenureship by industries

Industry	Assigned Caste	Caste-based artisans	Non-caste based artisans	All
Handloom (AR)	*Tanti, Jola* (weaver)	62 (86.11)	10 (13.89)	72 (100)
Handloom (BR)	*Tanti, Jola* (weaver)	70 (93.33)	5 (6.67)	75 (100)
Brassware (AR)	*Karmakar* (blacksmith)	39 (86.67)	6 (13.33)	45 (100)
Brassware (BR)	*Karmakar* (blacksmith)	50 (100.00)	0 (0.00)	50 (100)
Clay works	*Kumor* (potter)	20 (100.00)	0 (0.00)	20 (100)
Hornware	*Karmakar* (blacksmith)	7 (20.54)	27 (79.41)	34 (100)
Conchshell	*Sankari* (dealing with conch)	30 (100.00)	0 (0.00)	30 (100)
Lac works	*Karmakar* (blacksmith)	8 (26.67)	22 (73.33)	30 (100)
Total		286 (80.34)	70 (19.66)	356 (100)

Source: Sample survey; Note: parentheses indicate the percentage share

Table 6. Technological change of rural manufacturing during 1991-2001

Industry	Old Machine	Modern Machine
Handloom	Ordinary Loom	Purni, Rid, Pit loom, Big Drum
Brassware	Hammer & accessories	Press Machine, electricity
Clay works	Mud Structure	Cement or plaster of parish Structure
Hornware	Sirish paper, Furnaces	Electric Wheel, Generator
Conchshell	Sil, Dara, Batali, file, Bhamara	Cutting machine, Grinder machine
Lac works	Handmade rope	Ship machine

Source: Field Survey

Table 7. Change of nature of product produce during last 10 year (1991-2001)

Industry	Traditional Items	Modern Items
Handloom	Napnkin, bed sheet, sharee, handcarchip	Exclusive *sharee* (*Baluchari*, *Tasar*), swab, cduster, exportable items
Brassware	Glass, jug, plate	Decorative structure like god and goddess, medal and households items of region specific
Clay	Ordinary doll	Structure of fruits, animal, god & goddess etc.
Hornware	Comb, pen	Weasel, decorative and designed household product, flower, fish, animals, body of watch, spectacle frame
Conchshell	Bangle, Sankha, finger ring	Ring, watch by shell structure, decorative structure
Lac	Rope made *chapra*	Machine made *chapra*, plate, bottom, comb etc.

Source : Field Survey

Table 8. Production stages of handlooms industry, and nature of machines and labour used

Stages	Machines & tools used	Nature of work	Types of labour	Mode of payment*
1. Dubbing	Big container	Dubbing the fibre	Unskilled household or hired labour	Daily basis
2. Drying	—	Drying in sunlight	Unskilled household or hired labour	Daily basis
3. Rolling, I	Fibre-rolled wheel	Making the rolled cotton in catims	Unskilled Women household or contract	Piece rate
4. Rolling, II	Weaving wheel	Rolling the cotton on the weaving wheel	Skilled household or hired labour	Piece rate
5. Weaving	Pincers, rolling stick and weaving wheel	Weaving the fibre	Skilled household or hired labour	Piece rate
6. Packing	Scissors	Separation, packing	Unskilled household or hired labour	Piece rate

Note: * Mode of payment represents mainly hired labour; household labour is mostly unpaid.

Source: Field surveys.

Table 9. Production stages of brassware industry, and nature of machines and labour used

Stages	Machines & tools used	Nature of work	Types of labour	Mode of payment
1. Clay preparation	—	Pasting clay	Unskilled household labour	—
2. Container & dice	—	Making & checking the container and the dice	Household skilled female or daily labour	Piece rate
3. Melting	Furnaces	Melting the old metal or new chemical mixture (using copper, zinc or tin)	Skilled household male or hired labour	Piece rate
4. Shaping/casting	Hammer & accessories or press machine	Shaping the melted metal	Skilled household or hired labour	Piece rate
5. Structuring	Hammer & accessories	Structuring the proper shape by removing broken portions	Skilled household or hired labour	Piece rate
6. Engraving/ designing	Hammer & accessories	Designing the proper shape of utensils	Skilled household or hired labour	Piece rate
7. Polishing		Polishing the designed products	Skilled household or hired labour	Piece rate

Source: Field surveys

Table 10. Production stages of clay works, and nature of machines and labour used

Stages	Machines & tools used	Nature of work	Types of labour	Mode of payment
1. Clay preparation	Spade	Making clay by sand, jute fibre, straw	Unskilled male household or hired labour	Daily basis
2. Shaping	Structure	Shaping by the structure	Skilled male/female household or hired labour	Daily basis
3. Designing	Simple tools of wooden or bamboo blade	Designing doll or structure	Skilled male/female household or hired labour	Daily basis
4. Polishing	Dye, brush	Polishing by brush with the help of dye	Skilled male/female household or hired labour	Daily basis
5. Burning	Furnaces	Burning the product	Unskilled male/ female household or hired labour	Daily basis
6. Designing & polishing	Dye, brush	Dying and polishing the product	Skilled male/female labour	—

Source: Field surveys.

Table 11. Production stages of hornware works, and the nature of machines and labour used

Stages	Machines & tools used	Nature of work	Types of labour	Mode of payment
1. Drawing	Chalk, needle	Drawing on the raw horn to design the product	Skilled male household/ hired labour	Piece rate
2. Cutting	Scissors and pincers	Cutting the horn according to the drawing area	Skilled male household/ hired labour	Piece & daily rates
3. Grinding	Stone or grinder machine	Grinding the raw horn	Skilled male household/ hired labour	Piece & daily rates
4. Bopping	Siris paper, simple accessories	Rubbing the horn	Skilled male household/ hired labour	Piece & daily rates
5. Polishing	Motor	Polishing the horn and designing	Skilled male household/ hired labour	Piece & daily rates
6. Packing	Simple accessories	Packing the final product	Skilled male household/ hired labour	Piece & daily rates

Source: Field surveys.

Table 12. Production stages of conchshell works, and nature of machines and labour used

Stages	Machines & tools used	Nature of work	Types of labour	Mode of payment
1. Cutting	Power-operated cutting machine	Cutting raw conchshell according to size	Male, household/hired labour	Daily rate
2. Rubbing, I	Power-operated grinding machine, or traditional tools, such as pincers, scissors, hammer, saw, chisel, etc.	Rubbing the outer layers of the conchshell	Skilled male/female, household or hired labour	Piece rate
3. Pasting	Resin, hardner, zinc oxide wax	Pasting the rubbed conchshell into required shape	Male/female, household or hired labour	Piece rate
4. Rubbing, II or polishing	Power-operated grinding machine, or the traditional tools	Polishing the pasted area	Male/female, household or hired labour	Piece rate
5. Designing	Grinding machine, saw, plane	Designing the conchshell ring artistically	Male/female, household or hired labour	Piece rate

Source: Field surveys

Table 13. Productions stages of lac works, and nature of machines and labour used

Stages	Machines & tools used	Nature of work	Types of labour	Mode of payment
1. Grinding and boiling	Crushing machine, soda	Grinding the raw lac	Household/hired male worker	Daily rate or contract
2. Straining	Crushing machine	Straining the raw lac	Skilled hired male worker	Daily rate or contract
3. Washing	By hand or washing machine	Washing the strained lac	Hired male worker	Daily rate or contract
4. Driving	By hand	Separating the lac	Unskilled female hired labour	Daily rate or contract
4. Melting	By hand or rope or ship machine	Melting lac to make bottom	Skilled male contract or hired labour	Daily rate or contract
5. Bottom making	By hand and rope or ship machine	Producing bottom from melted lac	Skilled male contract labour	Daily rate or contract
6. Melting bottom	Furnace and container	Melting the bottom	Unskilled female household labour	—
7. Making and designing	Rope & accessories	Making and designing the product	Skilled male/female household labour	—

Source: Field surveys.

Table 14. Number of units of different production organizations and organisational change combining all industries

Organisation Strata	Independent	Tied	Cooperative	Total
Solely on hired workers (DME)	31 (20.8)	0 (0)	0 (0)	31 (8.7)
Both household and hired workers (NDME)	41 (27.5)	21 (13)	7 (15.6)	69 (19.3)
Solely on household workers (OAME)	77 (51.7)	141 (87)	38 (84.4)	256 (72.0)
All	149 (100)	162 (100)	45 (100)	356 (100)
Organisational change				
1991	158 (44.38)	75 (21.07)	123 (34.56)	356 (100)
2001	149 (41.85)	162 (45.51)	45 (12.64)	356 (100)

Source: Field Survey

Note: Figures in parantheses represent percentage share.

Table 15. Growth rate of Handicraft export by commodity during pre-liberalisation period (1980-90) and liberalised era (1991-2000)

Handicraft	Pre-liberalisation	Liberalisation	F*
Article of Silk	-1.09	-4.30	0.82
Wood works	13.50	595*	37.60*
Zari	19.70*	-10.8*	8.54*
Copper, Brass, Bronze similar artware	8.55*	8.67*	1.01
Embroidery	9.15*	11.2*	0.55
Pottery	18.4*	25.10*	0.88
Hornware	6.24*	5.69	0.92
Other Handicrafts	4.06	21.6*	20.16*
Total Handicrafts	6.30*	13.5*	5.35*

Source: Directorate General of Commercial Intelligence Statistics, Govt. of India

Note: * indicates the statistically significant at 5 percent level, Growth rate has been calculated by the semi-logerithic trend equation, F* is the chow test statistic.

Table 16. Growth and Fluctuations of Handicraft export by country during 1981 to 2000

Country	1981-90	1991-2000I	F	*Country*	1981-90	1991-2000I	F
Australia	8.96	15.03*	0.49	Saudi Arab	-7.95*	-3.36	0.44
	(1.24)	(6.41)			(-3.61)	(-1.51)	
Canada	13.93*	8.07*	0.67	UK	24.28*	8.40*	0.44
	(6.65)	(6.36)			(9.14)	(8.16)	
France	9.29*	11.57*	0.33	USA	10.52*	14.63*	0.77
	(2.55)	(9.93)			(5.81)	(19.97)	
German	1.43	2.35	2.12	Italy	5.18*	7.78*	0.67
	(0.23)	(0.68)			(0.77)	(3.21)	
Japan	11.47*	-0.60	0.04	Others	3.29*	10.31*	56.50*
	(2.04)	(-0.77)			(0.82)	(13.91)	
				Total	6.30*	13.50*	0.14
					(2.82)	(22.51)	

Source:DGCIS, GOI; Test static (F) for fluctuation is actually Goldfeld-Quandt test for heteroscedasticity which is nothing but the ratio of residual sum square in second period to residual sum squares in first period (Maiti, 2004). If F is less than one, fluctuation declines, while if it is more than one, it expands.

References

Alchian, A. and H. Demsetz, (1972) 'Production, Information costs, and Economic organization', *The American Economic Review*, Vol. LXII, NO. 5, 777-795.

Aleman, P.P. (2003), 'Decentralized Production Organization and Institution transformation: large and small firm network in Chile and Nicaragua', *Cambridge Journal of Economics*, 27 (6), 789-805

Banarjee, D. (1994), *Institutional Constraint on Rural Development: An Exploratory Study of Silk Weaving in West Bengal*, Occasional Paper, Calcutta: Centre for Studies in Social Sciences.

Banerjee, N. (1995), Women and Industrialization in Developing Countries, *Occasional Paper* No. 71, Calcutta: Centre for Studies in Social Sciences

Berry, A. (1987), 'The Limited Role of Rural Small-scale Manufacturing for Late comers: Some Hypothesis on the Colombian Experience', *Journal of Latin American Countries*, Vol. 19, No. 2, 295-322

Biswas, P. K. (2001), 'Surplus Yield and Production Structure: The Case of Small-Scale Rural Industries in West Bengal', *The Journal of Peasant Studies*, Vol.28, No.2, 199-145.

Biswas, P.K. (2003), *Rural Industrialisation in West Bengal: Institutions, Innovation and Growth*, Manak, New Delhi

Bottomley, A. (1965), 'The Fate of the Artisan in Developing Economics', *Social and Economic Studies*, Vol. 14, No.2, 194-203.

Bremen, J. (2001), 'An Informalised Labour System: End of Labour market Dualism', *Economic and Political Weekly*, Vol. 36, No. 52, December, 29

Census of India. (1991), *Primary Census Abstract*, Government of India, New Delhi.

Central Statistical Organization (1980), *Economic Census*, Government of India

Central Statistical Organization (1990), *Economic Census*, Government of India

Central Statistical Organization (1998), *Economic Census*, Government of India

Coase, R. (1937), 'The Nature of Firm', *Economica*, Vol. IV, November, pp 386-405.

Cook, S. (1984), 'Peasant Economy, Rural Industry and Capitalist Development in the Oaxaco Valley, *The Journal of Peasant Studies*, Vol. 12 No. 1, October.

Demsetz, H. (1997), "The firm in economic theory: a quiet revolution", *American Economic Review*, Vol. 87, no. 2, 426-9.

D' Mello, B. (1992), 'Thinking about the Labour Process: Some clues from Western Studies', *Economic and Political Weekly*, Vol XXVII, No. 22, May 30, pp M63-M70.

Dreze, J. (1997), 'Palanpur 1957-93: Occupational Change, Land Ownership and Social Inequality', in J. Breman, P. Kloos and A. Saith (eds.), *The Village in Asia Revised*, Oxford University Press, Delhi

Eapen, M. (2001), *Rural Industrialization in Kerala.- Its Dynamics and local Linkages*, Manohar.

Economic and Political Weekly Research Foundation (2001), '*Annual Survey of Industries: 1972-72 to 1997-98*', Mumbai.

Geetz, H. (1963), *Peddlers and Princes*, Chicago, University of Chicago Press

Government of India, 1995-96, Census of Handicrafts - 1995-96, NCAER

Government of India (1991), *Primary Census Abstract – Economic Tables, West Bengal*, Census of India, New Delhi.

Government of India, Annual volume (March) 1980-81 to 2000-01, *Export by Commodity and by Country*, Directorate General Commission for Intelligence Statistics, Ministry of External Affairs

Government of West Bengal (1975), Report of the Inquiry into existing working conditions if the Workers of Bell Matel and Bass Metal Industry, Information and Public Relation Department

Havan, D. (1988), Alternative Development: Sugarcane Processing in India, Sage Publications, New Delhi

Ho, Y. M. and D. L Huddle (1976), Traditional and Small-Scale Culture Goods in International Trade and Employment, *Journal of Development Studies*, Vol.12, No.2, pp. 232-51

Ho, S.P.S (1995), 'Rural Non-agricultural Development in post-Reform China: Growth, Development, Patterns, and Issues', *Pacific Africa*, Vol. 68, No. 3, Autumn, 360-391

Houston, R. and K. D. M. Snell, 1984, 'Historical Review: Proto-industrialization Cottage Industry, Social Change, and Industrial Revolution', *The Historical Journal*, Vol. 27, No. 2, pp. 473-492

Hymer, S. and S. Resnick (1969), 'A Model of Agrarian Economy with Non–Agricultural Activities', *The American Economic Review*, Vol. LIX, pp. 493-506.

Huggin, B. (1995), *Economic Development*, Norton, New York

Islam, R. (1987), *Rural Industrialization and Employment in Asia*, ILO (ARTEP), New Delhi.

Khasnabis, R. and P. Nag (2001), 'Labour Process in the Informal Sector A Handloom Industry in Nadia District', *Economic and Political Weekly*, Vol. 36, No 52, December 29.

Knight, F.H. (1946), *Risk, Uncertainty and Profit*, Boston, Houghton Mifflin

Krishnanraju, M. (1992), 'Women Craft Workers as Security for Family Subsistence', *Economic and Political Weekly*, Vol. XXVII, No. 17, April 25. WS7-WS17

Knight, F.H. (1946), *Risk, Uncertainty and Profits*, New York

Kriedte, P., H. Medick and J. Schlumbohm (1981), *Industrialization before Industrialization*, Cambridge University Press, Cambridge

Kumar, N. (2000), 'Economic Reforms and Their Macro-Economic Impact', *Economic and Political Weekly*, March 4, 803-812

Landes, D. S. (1969), *The Unbound Prometheus*, Cambridge, Cambridge University Press.

Lenin, V.I. (1964), *The Development of Capitalism in Russia, Collected Works, Volume 3*, Progress Publication, Moscow

Liebl, M. and T. Roy (2003), "Handmade in India – Preliminary Analysis of Crafts Producers and Crafts Production", *Economic and Political Weekly*, December 27, pp. 5366-5376.

Little, M. D., Majumdar, D. and Page, J. M. (1987), *Small Manufacturing Enterprises –A Comparative Analysis of India and Other Economies*, The World Bank, Oxford University Press.

Lewis W.A, (1954), "Economic Development and Unlimited Surplies of Labour; *The Manchester School of Economic and Social Studies*, Vol.22, No., pp 131-191

Maiti D. S. (2004), *Production Organization and Dynamics of Rural Industrialization: A Study of Some Manufacturing Industries of West Bengal*, Vidyasagar University (Unpublished Ph.D theses).

Marjit S. and D.S. Maiti (2005), "Globalization, Reform and The Informal Sector", in B. Guhakhashnobish and R. Kanbur (eds.) *Informal Labor Market*, and Development Palgrave-MacMillan, WIDER, Helsinki (forthcoming), Research Paper No. RP 2005/12.

Marjit, S. and S. Kar (2004) 'Wages, Labour Mobility and International Trade', in A. Bhattacharjea and S. Marjit (eds.), *Globalization and the Developing Economies: Theory and Evidence*' Monohar, New Delhi

Marx, K. (1867), *Capital*, Progress Publishers, Moscow.

Marx, K. (1976), *Capital*, International Publishers, New York.

Mendels, Franklin F. (1972), 'Proto-industrialization: The First Phase of Industrialization Process' *Journal of Economic History*, Vol. 32, No. 1.

Mies, M. (1981), 'Dynamics of Sexual Division of Ladour and Capital Accumulation: Women Lace Workers of Nor Sapu', *Economic and Political Weekly*, Vol. 16,. Annual No. 10, 11 & 12, March, pp. 487-500.

Mellor, J.W. (1976). The New Economics of Growth: A Strategy for India and the Developing Countries, Cornell University Press, Ithaca.

Misra, R. P. (1985), *Rural Industrialization in Third World Coun*tries, Sterling Publishers Private Ltd., New Delhi.

Mukherjee, D. (1995), *Indian Industry – Policies and Performance*, ed., Oxford University Press, Delhi.

Mukhopadhyay, S. and C. P. Lim (1985), *Development and Diversification of Rural Industries in Asia*, (eds.), Kuala Lumper: Asian and Pacific Development Center.

Nagraj, K., (1987), *Female Workers in Rural Tamil Nadu: A Preliminary Study*, ILO- ARTEP, New Delhi

NSSO, *Employment and Unemployment Situation in India*, 1993-94, 50th Round. Government of India: Department of Statistics,

NSSO, *Employment and Unemployment Situation in India*, 1999-2000, 55th Round. Government of India: Department of Statistics.

NSSO, *Unorganised Manufacturing sector in India*, 2000-01, 56th Round. Government of India: Department of Statistics.

Papola, T.S. (1987), "Rural Industrialisation and Agricultural Growth: Case Study of India" in R. Islam (ed.), *Rural Industrialisation and Employment in Asia*, ILO/ARTEP, New Delhi

Putterman, L., (1986), *The Economic Nature of Firm: A Reader*, Cambridge University Press, Cambridge.

Ray, S. (1991), "Factor inhabiting simple commodity production in rural India", *Asian Survey*, Vol. 37, No. 3, pp. 247-254

Resnick, S., (1970), The Decline of Rural Industries under Export Expansion: A Comparison among Burma, Philippines and Thailand, 1870-1938, *Journal of Economic History*, Vol.30

Rostow, W. W., (1960), *The Stages of Economic Growth*, Cambridge: Cambridge University Press.

Roy, T. (1996), 'Home Market and the Artisans in Colonial India: A Study of Brass-ware', *Modern Asian Studies*, Vol. 30, No. 2, pp. 357-385.

Rutten, M. and C. Upadhya, (1997), *Small Business Entrepreneurs in Asia and Europe – Towards a Comparative Perspective*, ed., Sage Publication, New Delhi.

Ranis, G. and F. Stewart (1993), 'Rural Non-Agricultural Activities in Development: Thery and Application', *Journal of Development Economics*, Vol. 40, No. 1, Feb., pp. 75-101

Saith, A. (1987), 'Contrasting Experience in Rural Industrialization: Are the East Asian successes Transferable', in (ed), R. Islam, *Rural Industrialization and Employment in Asia*, ARTEP-ILO, New Delhi

Saith, A., (2001), 'From Village Artisans to Industrial Clusters: Agendas and Policy Gaps in Indian Rural Industrialization', *Journal of Agrarian Change*, Vol. 1, No. 1, 81-123

Saith, A. and Tankha, A. (1997), 'Longitudinal Analysis of Structural Change in a North Indian Village: 1970-1987', in J. Breman, P. Kloos and A. Saith (eds.), *The Village in Asia Revised*, Oxford University Press, Delhi

Shetty, M.C. (1963), *Small-Scale and Household Industries in a Developing Economy*, Asia Publishing House, London

Singh, M., (1990), *The Political Economy of Unorganized Industry: A study Of Labour Process*, Sage Publications, New Delhi.

Soundarapandian, M. (2000), *Industrial Resurgence in Rural India: Scope and Strategies*, Mohit Publications, New Delhi.

SRUTI, (1995), *India's Artisans: A Status Report.* Society for Rural, Urban and Tribal Initiative, New Delhi

Sweezy, P. M. (1991), *The Theory of Capitalist Development: Principles of Marxian Political Economy*, K.P.Bagchi & Company, Calcutta.

Tilly C. and R. Tilly (1971), 'Agenda for Europe Economic History in the 1970s', *Journal of Economic Histroy*, Vol. 31, pp. 184-98

Tyabji, N. (1989), 'Nature of Small enterprise development; Political aims and socio-economic reality', *Economic and Political Weekly*, August

Tybout, J. R. (2000), 'Manufacturing Firms in Developing Countries: How Well Do They Do, and Why?' *Journal of Economic Literature*, Vol 38, pp. 11-44

Williumson, O., M. Wachter and J. Harris (1975), "Understanding the employment relation: the analysis of idiosyncratic exchange", *The Bell Journal of Economics*, 6, pp. 250-78.

Vincent-Lancrin, S. (2003) "Adam Smith and division of labour: is there different between organisation and market?", *Cambridge Journal of Economics*, 27, pp. 209-224

Yang, M. (1994), "Reshaping Peasant Culture and Community: Rural Industrialization in a Chinese Village", *Modern China*, Vol. 20, No. 2, April, 157-179

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